AMENDMENTS TO THE CLAIMS:

The following listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method for controlling a roller shade having a rotatably supported roller tube windingly receiving a flexible shade fabric, the method comprising:

providing a motor having a rotatably driven output shaft operably connected to the roller tube for rotating the roller tube;

rotating the roller tube to move a lower end of the shade fabric between first and second shade positions; and

controlling the motor to vary the rotational speed of the output shaft during the movement of the shade fabric, so as to control a linear speed of the lower end of the shade fabric such that the linear speed of the lower end of the shade fabric is maintained substantially constant during multiple rotations of the roller tube.

2. (Canceled).

3. (Original) The method according to claim 1, further comprising moving the lower end of the shade fabric upwardly or downwardly with respect to the roller tube depending on the direction of rotation for the roller tube, and varying the rotational speed at which the roller tube is rotated by increasing the rotational speed during downward movement of the shade fabric lower end and by decreasing the rotational speed during upward movement of the shade fabric lower end.

4. (Currently Amended) The method according to claim 1 ~~2~~ further comprising:

directing a pulse width modulated duty cycle signal to the motor to establish a particular rotational speed for the output shaft of the motor; and

modifying the pulse width of the pulse width duty cycle signal to vary the rotational speed of the motor output shaft.

5. (Original) The method according to claim 4 further comprising:

providing a controller adapted to generate the pulse width modulated duty cycle signal and an H-bridge circuit between the controller and the motor.

6. (Canceled).

7. (Currently Amended) A method for controlling a roller shade having a rotatably supported roller tube, the roller tube windingly receiving a flexible shade fabric, the method comprising:

providing a motor operably engaging the roller tube to rotate the roller tube;

providing a control system adapted to control the motor to vary the rotational speed at which the roller tube is rotated;

controlling the motor using the control system to rotate the roller shade to move a lower end of the shade fabric with respect to the roller tube;

determining, using the control system, the position of the lower end of the shade fabric; and

varying the rotational speed at which the roller tube is rotated by the control system depending on the position of the lower end of the shade fabric determined by the control system such that the linear speed of the lower end of the shade fabric is maintained substantially constant during multiple rotations of the roller tube.

8. (Original) The method according to claim 7 wherein the motor of the drive system includes a rotatingly driven shaft, the method further comprising:

providing a Hall effect sensor assembly located adjacent the motor output shaft to generate a Hall effect signal during rotation of the motor output shaft for determining revolutions of the shaft;

providing a microprocessor adapted to receive the Hall effect signal from the sensor assembly and to maintain a counter number that is increased or decreased depending on the direction of rotation of the motor output shaft;

assigning a default counter number associated with a default shade position for the shade fabric;

determining the difference between a current counter number associated with a current shade position and the default counter number;

determining the number of revolutions of the roller tube between the given shade position and the default shade position that is equivalent to the counter number difference; and

determining the current shade position based on the equivalent number of roller tube revolutions.

9. (Original) The method according to claim 8, wherein the default shade position is the fully-closed shade position.

10. (Original) The method according to claim 9, wherein the shade fabric is moveable between the fully-opened shade position and a fully-closed shade position, and wherein the counter number associated with the fully-opened shade position is sufficiently large to provide for a positive counter number regardless of whether the counter number is increased or decreased during movement of the shade fabric between the fully-opened and fully-closed shade positions.

11. (Original) The method according to claim 7 wherein the shade fabric has a thickness and is movable between a fully-opened shade position in which a length of the shade fabric is windingly received by the roller tube and fully-closed shade position, the method further comprising:

selecting a desired linear speed for the shade fabric;

determining a base rotational speed for moving the shade fabric at the desired linear speed at the fully-closed shade position;

determining the number of roller tube revolutions necessary to move the shade fabric between the fully-closed and fully-opened shade positions based on the length and thickness of the shade fabric;

determining a fully-wound radius that is equal to the distance between a rotational axis for the roller tube and the point at which the shade fabric is windingly received at the fully-opened shade position; and

determining a rotational speed reduction with respect to the base rotational speed that is necessary at the fully-opened shade position to move the shade fabric at the desired linear speed.

12. (Previously Presented) The method according to claim 11 further comprising:

determining a scaled rotational speed reduction with respect to the base rotational speed based on the position of the shade fabric; and

controlling the motor to adjust the rotational speed at which the roller tube is rotated based on the scaled rotational speed reduction.

Claims 13-20 (Canceled).

21. (New) The method of claim 1, wherein the step of controlling the motor further comprises determining the rotational speed of the output shaft in response to a desired linear speed and a radius of the roller tube and an amount of fabric wound around the roller tube.

22. (New) The method of claim 21, wherein the step of controlling the motor further comprises calculating the rotational speed of the output shaft by dividing the desired linear speed by the radius of the roller tube and the amount of fabric wound around the roller tube.

23. (New) The method of claim 1, further comprising the step of:

determining a position of the lower end of the shade fabric, and

wherein the step of controlling the motor further comprises controlling the motor to vary the rotational speed of the output shaft in response to the position of the lower end of the shade fabric.

24. (New) The method of claim 23, further comprising the step of:

determining a radius of the roller tube and an amount of fabric wound around the roller tube in response to the position of the lower end of the shade fabric, and

wherein the step of controlling the motor further comprises determining the rotational speed of the output shaft in response to a desired linear speed and the radius of the roller tube and the amount of fabric wound around the roller tube.

25. (New) The method of claim 1, further comprising the step of:

determining when the roller tube has completed a rotation, and

wherein the step of controlling the motor further comprises controlling the motor to vary the rotational speed of the output shaft in response to the step of determining when the roller tube has completed a rotation.

26. (New) The method of claim 7, further comprising the steps of:

determining a radius of the roller tube and an amount of fabric wound around the roller tube in response to the position of the shade fabric; and

controlling the motor to adjust the rotational speed at which the roller tube is rotated in response the radius of the roller tube and the amount of fabric wound around the roller tube.

27. (New) The method of claim 26, further comprising the steps of:

selecting a desired linear speed for the shade fabric; and

calculating the rotational speed of the output shaft by dividing the desired linear speed by the radius of the roller tube and the amount of fabric wound around the roller tube.